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EXAMINER

SHORTLEDGE, THOMAS E

ART UNIT PAPER NUMBER

2626

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/060,579	Applicant(s) KARAS ET AL	
	Examiner Thomas E. Shortledge	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-18, 21-23 and 25-28 is/are rejected.
- 7) ☒ Claim(s) 4, 19, 24, 29-31 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. This communication is in response to Appeal Brief, filed 07/21/2006.
2. Claims 1-31 are pending. Claims 1, 5, 21, 23 and 25 are independent.

Response to Arguments

3. Applicant's arguments with respect to claims 1-3, 5-18, 21-23 and 25-28 have been considered but are moot in view of the new ground(s) of rejection.

Response to Amendment

4. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claim 23 is rejected under 35 U.S.C. 102(b) as being anticipated by Basson et al. (US 6,996,526 B2).

As to claim Basson et al. teach:

converting spoken words in an information stream to written text, the information stream containing audio information (transcribing speech from an input stream of speech, col. 2, lines 44-48).

generating a separate encoded file for every word, wherein each encoded file shares a common time reference (storing a selected word from each of the different automatic speech recognition systems, and a time segment that, that word was recorded, col. 3, lines 5-10 and col. 4, lines 45-60).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3, 5-17, 20-22 and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Charlesworth et al. (6,990,448) in view of D'hoore et al. (6,085,160).

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As to claims 1, 5, 21 and 25, Charlesworth et al. teach:

identifying attributes including one or more types of accents and one or more types of human languages from a multi-party audio information stream (identifying attributes from a communication stream, involving more than one speakers, where for each language, the speaker's language, accent, dialect and phonetic set are identified, col. 9, lines 38-49);

encoding each identified attribute from the audio information stream into a time ordered index, each of the identified attributes sharing a common time reference (storing the identified attributes identified in annotation data, within a header, (col. 9, lines 43-49), where the header includes a time index which associates the location of the blocks of annotation data within the memory, col. 5, lines 52-58);

comparing results at approximately the same time to generate an integrated time ordered index of the identified attributes (identifying the language of the speaker, col. 5, lines 62-63, and creating time index associating the location of the blocks that have that attribute, col. 5, lines 50-67).

A computer readable storage medium to store the software engine (a personal computer with programmable code stored within it, col. 3, lines 1-5).

Charlesworth et al. do not explicitly teach comparing results from different human language models.

However, D'hoore et al. teach comparing the results from different language models within a multi-language model to find the best phoneme combination (col. 8, lines 26-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the methods of Charlesworth et al. with the different language models within a multi-language model to reduce the error when matching a model to uttered speech during speech recognition, since a system with only a single language model is more prone to pronunciation mistakes during recognition, while a system with different language models within a multi-language model is able to detect correct pronunciation mistakes during automatic speech recognition, as taught by D'hoore et al. (col. 8, lines 37-57).

As to claim 2, Charlesworth et al. teach comparing confidence ratings, (col. 6, lines 12-20).

Charlesworth et al. do not teach the confidence ratings of different human languages. However, Charlesworth et al. teach the confidence ratings are based on a phoneme representation of the data, where it would be obvious to one of ordinary skill in the art at the time of the invention that when different human languages are used to find the correct human language, the weights for the phoneme will be different for each of the languages.

As to claim 3, Charlesworth et al. teach generating a transcript including each spoken word, wherein each spoken word shares the common time reference (generating a transcript of the spoken data, (col. 11, lines 25-30) generating the annotation data, where the annotation data contains a time index, col. 5, lines 52-58).

As to claims 6 and 22, Charlesworth et al. teach generating a query on one or more of the identified attributes in the time ordered index (generating a query based on a attribute, col. 6, lines 24-35).

As to claims 7 and 18, Charlesworth et al. teach correlating a first identified attribute of the information stream with a second identified attribute having a similar time code (grouping attributes under one memory block with similar time codes, col. 5, lines 45-57).

As to claim 8, Charlesworth et al. teach the audio information stream comes from an unstructured information source (inputting conversational language with video, col. 9, lines 38-45).

As to claim 9, Charlesworth et al. teach the audio information stream includes audio-visual data (inputting conversational language with video, col. 9, lines 38-45).

As to claim 10, Charlesworth et al. teach the audio information stream includes speech data (inputting conversational language with video, col. 9, lines 38-45).

As to claim 11, Charlesworth et al. teach at lest one of the identified attributes further comprises a change of accent (the speakers are identified along with their

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accents, col. 9, lines 38-45. Where it would be necessary that if the speakers had different accents a change of accent would be identified).

As to claim 12, Charlesworth et al. teach at least one of the identified attributes further comprises a change of human language (the speakers are identified along with their language, col. 9, lines 38-45. Where it would be necessary that if the speakers had different languages a change of language would be identified).

As to claim 13, Charlesworth et al. do not teach at least one of the identified attributes further comprises a discrete spoken word.

However, D'hoore et al. teach recognizing words from the input (col. 2, lines 45-46).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the methods of Charlesworth et al. with the word recognition of D'hoore et al. allowing the system to determine how well a user pronounced the word, to improve the ability for a user to the pronunciation of a language to be learned, as taught by D'hoore et al. (col. 8, lines 20-31).

As to claim 14, Charlesworth et al. teach the identified attributes are encoded via extensible markup language (encoding the identified attributes to be sent over a data network, such as the internet, where it would be obvious to one of ordinary skill in the art at the time of the invention that the attributes are encoded via extensible markup

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language since extensible markup language is a common encoding format for sending data over the internet).

As to claims 15 and 26, Charlesworth et al. teach the time ordered index includes a start time and a duration in which each identified attribute was conveyed, (col. 5, lines 48-57).

As to claim 16, Charlesworth et al. teach the common time reference comprises a time indication (header with time indication, col. 5, lines 38-55).

As to claim 17, Charlesworth et al. teach the common time reference comprises a frame count (header with time information and duration related to a video input, col. 5, lines 38-55).

As to claim 20, Charlesworth et al. teach the integrated time ordered index includes data from different human language models (the time index includes information about the used vocabulary and language 5, lines 18-30).

As to claim 27, Charlesworth et al. teach one or more attribute filters generate time ordered index of the audio information stream in real time (the attributes of the audio information are generated as the information is inputted into the system, col. 3, lines 5-11).

As to claim 28, Charlesworth et al. teach the audio information stream passes through the one or more attributes filters a single time (the audio data is processed as it is inputted into the system, and the current data is processed by the system, and then the next data is processed, col. 4, lines 33-42).

Allowable Subject Matter

9. Claims 4, 19, 24 and 29-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

As to claim 4, Charlesworth et al. (the closest prior art of record) do not teach nor fairly suggest in combination with claim 1 triggering an even to occur up on an identification of unique voice characteristics of a speaker in less than five seconds.

As to claim 19, Charlesworth et al. do not teach nor fairly suggest in combination with claim 18, the similar time code comprises the first identified attribute possessing a

start time approximately the same as the second identified attribute or an overlapping of the durations associated with the first identified and the second identified attribute.

As to claim 24, Charlesworth et al. do not teach nor fairly suggest in combination with claim 23 generating a link to relevant material based upon the spoken words and synchronizing a display of the link in less than five seconds from analyzing the information stream.

As to claim 29, Charlesworth et al. do not teach nor fairly suggest in combination with claim 25 a manipulation module to perform operation on a first set of attributes in order to manipulate a second set of attributes.

As to claim 31, Charlesworth et al. do not teach nor fairly suggest in combination with claim 25 a triggering and synchronization module to dynamically trigger a link and synchronize the appearance of the link based upon a transcribed text from the information stream.

Claim 30 would be allowable since it depends from claim 29, which has been indicated to obtain allowable subject matter.

Conclusion

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11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas E. Shortledge whose telephone number is (571)272-7612. The examiner can normally be reached on M-F 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571)272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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